Serial Number: 10/048,072

Filing Date: January 25, 2002

Title: Immunotherapy In HIV Infected Persons Using Vaccines After Multi-Drug Treatment

IN THE CLAIMS 1-3, 7-10, 12-18, 20-22

Please amend the claims as follows.

- 1. (Currently Amended) A method of stimulating a <u>HIV1-specific CD8⁺ response in a human infected with an HIV retrovirus said method comprising:</u>
- administering to the human, a <u>an attenuated recombinant pox virus</u>, which enters the cells of the human and intracellularly produces HIV specific peptides for presentation on the cell's MHC class I molecules,
- where said peptides are presented in an amount sufficient to stimulate a protective CD8⁺ HIV antigen-specific CD8+ and CD4+ responses response, and
- where said human
 - i. has a viral load of less than 10,000 viral copies per ml of plasma and a CD4⁺ cell count of above 500 cells/ml, and
 - ii. has been treated with one or more anti-viral agents, which contributed to a lower viral copy and higher CD4⁺ cell count than before treatment

where said HIV specific peptides comprise HIV Gag, Gp120, Nef or Pol peptides.

- 2. (Previously Presented) A method of claim 1 wherein the human has been treated with anti-viral agents, which resulted in the human having a viral load of less than 1,000 viral copies per ml of blood serum and a CD4⁺ cell count of above 500 cells/ml.
- 3. (Original) A method of claim 2 wherein the anti-viral agents comprise a combination of protease inhibitors and inhibitors of reverse transcriptase.
- 4. (Canceled)
- (Canceled)
- 6. (Canceled)

10/213 1261 128 (219

Serial Number: 10/048,072 Filing Date: January 25, 2002

Title: Immunotherapy In HIV Infected Persons Using Vaccines After Multi-Drug Treatment

- 7. (Currently Amended) A method of claim_1 [[6]] wherein the attenuated recombinant pox virus comprises NYVAC or ALVAC.
- 8. (Currently Amended) A method of claim 1 [[6]] wherein the recombinant pox virus comprises MVA.
- 9. (Currently Amended) A method of claim 1 where the <u>attenuated recombinant pox virus</u> vaccine is administered a second time.
- 10. (Previously Presented) A method of claim 1 wherein the HIV specific peptides are structural viral peptides.
- 11. (Canceled)
- 12. (Currently Amended) A method of claim 1 wherein the <u>method</u> vaccine further comprises <u>administering</u> an adjuvant.
- 13. (Original) A method of claim 1 further comprising administering interleukin 2 or CD40 ligand in an amount sufficient to potentiate the CD8⁺ response.
- 14. (Previously Presented) A method of claim 1 where the human has been infected with HIV and has demonstrated repeated and sustained proliferative T-cell responses to Gp120 envelope protein.
- 15. (Previously Presented) A method of claim 14 where the human has demonstrated repeated and sustained proliferative T-cell responses to p24 Gag antigen.
- 16. (Previously Presented) A method of claim 1 where the human is infected with HIV and is further tested by a skin test for a hypersensitive response to p24 Gag antigen.

Serial Number: 10/048,072 Filing Date: January 25, 2002

Title: Immunotherapy In HIV Infected Persons Using Vaccines After Multi-Drug Treatment

- 17. (Previously Presented) A method of claim 1 where the human is infected with HIV and is further tested by a skin test for a hypersensitive response to Gp120 envelope antigen.
- 18. (Currently Amended) A method of maintaining a reduced viral load in a mammal infected with an immunodeficiency retrovirus said method comprising:
- administering to the mammal a <u>an attenuated recombinant pox virus</u>, which enters the cells of the mammal and intracellularly produces immunodeficiency retroviral specific peptides for presentation on the cell's MHC class I molecules,
- where said peptides are presented in an amount sufficient to stimulate a protective CD8⁺
 HIV antigen-specific CD8+ and CD4+ responses response, and thereby maintain a reduced viral load in the mammal, and
- iii) where said mammal
 - i. has an immunodeficiency retroviral load of less than 10,000 viral copies per ml of plasma and a CD4⁺ cell count of above 500 cells/ml prior to administration of the recombinant virus, and
 - ii. has been treated with one or more anti-viral agents, which contributed to a lower viral copy and higher CD4⁺ cell count before treatment where said peptides comprise immunodeficiency retroviral Gag, Gp120, Nef or Pol peptides.
 - 19. (Canceled)
 - 20. (Currently Amended) A method of stimulating a HIV1-specific CD8⁺ response in a human infected with an HIV retrovirus said method comprising:
- administering to the human, a <u>an attenuated recombinant pox virus</u>, which enters the cells of the human and intracellularly produces HIV specific peptides for presentation on the cell's MHC class I molecules,
- where said peptides are presented in an amount sufficient to stimulate a protective CD8⁺
 HIV antigen-specific CD8+ and CD4+ responses response, and
- iii) where said human
 - i. has a viral load of less than 10,000 viral copies per ml of plasma and a CD4⁺ cell count of above 500 cells/ml, and

Serial Number: 10/048,072

Filing Date: January 25, 2002

Title: Immunotherapy In HIV Infected Persons Using Vaccines After Multi-Drug Treatment

ii. has been treated with one or more anti-viral agents, which contributed to a lower viral copy and higher CD4⁺ cell count than before treatment

where said HIV specific peptides comprise Gag, Pol, Env peptides or a combination thereof.

- (New) The method of claim 2, wherein anti-viral treatment is reduced or stopped 21. after administering the recombinant virus.
- (New) The method of claim 2, wherein anti-viral treatment is interrupted after 22. administering the recombinant virus.